CLAIMS

What is claimed is:

1. An apparatus comprising:

a transceiver to receive a first code from a transmitter via a short-range wireless communications standard, the transceiver generating a second code; and

a correlator on the transceiver that uses the first and second codes to find the distance between the transceiver and the transmitter, the correlator using the distance to determine a position of the transceiver relative to the transmitter.

2. The apparatus of claim 1 wherein the transceiver receives first codes from at least four different transmitters, the transceiver using the first codes to determine a position of the transceiver relative to the four transmitters.

3. The apparatus of claim 1 wherein the transceiver further comprises a radio frequency unit with a radio and a baseband processing unit.

4. The apparatus of claim 3 wherein the radio frequency unit of the transceiver receives the first code sent by the transmitter.

5. The apparatus of claim 3 wherein the baseband processing unit processes a noise code received from a satellite in a global positioning system (GPS), the

transceiver using the noise code to determine a position of the transceiver relative to the satellite.

6. The apparatus of claim 5 wherein the transceiver includes a short-range wireless communication interface to exchange augmentation data with the GPS.

7. The apparatus of claim 6 wherein the augmentation data is selected from the group consisting of differential corrections, wide area augmentation system (WAAS) corrections, satellite ephemeris data, doppler shift estimates, satellite snapshot data, and terrain maps.

8. The apparatus of claim 1 wherein the short-range wireless communications standard is Bluetooth™.

9. The apparatus of claim 1 wherein the short-range wireless communications standard is IEEE 802.11b.

10. The apparatus of claim 1 wherein the first and second codes are noise codes.

11. A system comprising:

a transmitter to transmit a first code corresponding to the transmitter using a short-range wireless communications standard;

a transceiver having a radio frequency (RF) unit with a radio to receive the first code, the transceiver generating a second code;

a baseband processing unit on the transceiver, the baseband processing unit processing a noise code received from a satellite in a global positioning system (GPS); and

a correlator on the transceiver, the correlator using the first and second code to determine a first distance between the transceiver and the transmitter, the correlator determining a first position of the transceiver relative to the transmitter, and the correlator determining a second distance between the transceiver and the satellite in order to determine a second position of the transceiver relative to the satellite.

12. The system of claim 11 wherein the transceiver receives first codes from at least four different transmitters, the transceiver using the first codes to determine a position of the transceiver relative to the four transmitters.

13. The system of claim 11 wherein each transceiver receives GPS noise codes from at least four different satellites, the transceiver using the GPS noise codes to determine a position of the transceiver relative to the four satellites.

14. The system of claim 13 wherein the transceiver includes a short-range wireless communication interface to exchange augmentation data with the GPS.

15. The system of claim 14 wherein the augmentation data is selected from the group consisting of differential corrections, wide area augmentation system (WAAS) corrections, satellite ephemeris data, doppler shift estimates, satellite snapshot data, and terrain maps.

16. The system of claim 11 wherein the short-range wireless communications standard is Bluetooth™.

17. The system of claim 11 wherein the short-range wireless communications standard is IEEE 802.11b.

18. The system of claim 11 wherein the first and second codes are noise codes.

19. A method comprising:

sending a first code from a transmitter to a transceiver via a short-range wireless communications standard;

generating a second code to correspond to the first code;

comparing the first code with the second code;

calculating a distance between the transmitter and the transceiver; and

determining a position of the transceiver relative to the transmitter using the calculated distance between the transmitter and the transceiver.

20. The method of claim 19 further comprising the steps of:

receiving first codes from at least four different transmitters; and

determining a position of the transceiver relative to the four transmitters.

21. The method of claim 19 further comprising the steps of:

sending noise codes from a satellite in a global positioning system (GPS) to the transceiver; and

processing the noise code to determine a position of the transceiver relative to the satellite.

22. The method of claim 21 wherein the step of processing the noise code is done by a baseband processing unit of the transceiver.

23. The method of claim 21 further comprising the steps of:

receiving noise codes from at least four satellites; and

determining the position of the transceiver relative to the four satellites.

24. The method of claim 23 further comprising the step of exchanging augmentation data between the GPS and a short-range wireless communications interface on the transceiver.

25. The method of claim 24 wherein the augmentation data is selected from the group consisting of differential corrections, wide area augmentation system

(WAAS) corrections, satellite ephemeris data, doppler shift estimates, satellite snapshot data, and terrain maps.

26. The method of claim 19 wherein the short-range wireless communications standard is Bluetooth™.

27. The method of claim 19 wherein the short-range wireless communications standard is IEEE 802.11b.

28. The method of claim 19 wherein the first and second codes are noise codes.

29. A method comprising:

processing a number of first codes sent by a plurality of transmitters to a transceiver;

processing a number of second codes generated by the transceiver, each second code generated to correspond to each first code;

processing a number of first noise codes sent by a number of satellites in a global positioning system (GPS) to the transceiver;

processing a number of second noise codes generated by the transceiver, each second noise code generated to correspond to each first noise code; and

determining a position of the transceiver relative to the transmitters and the GPS.

30. A machine-readable storage medium tangibly embodying a sequence of instructions executable by the machine to perform a method, the method comprising:

processing a number of first codes sent by a plurality of transmitters to a transceiver;

processing a number of second codes generated by the transceiver, each second code generated to correspond to each first code;

processing a number of first noise codes sent by a number of satellites in a global positioning system (GPS) to the transceiver;

processing a number of second noise codes generated by the transceiver, each second noise code generated to correspond to each first noise code; and

determining a position of the transceiver relative to the transmitters and the GPS.